



[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1453; Directorate Identifier 2009-SW-46-AD]

RIN 2120-AA64

Airworthiness Directives; Agusta S.p.A. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Agusta S.p.A. (Agusta) Model A109, A109A, A109A II, A109C, A109K2, A109E, A109S, and A119 helicopters. This proposed AD is prompted by a mandatory continuing airworthiness information (MCAI) AD issued by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community. The MCAI AD states that a Model A109E helicopter has experienced a failure of the tail rotor pitch control link assembly caused by a production defect. The proposed actions are intended to prevent failure of a tail rotor pitch control link and subsequent loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- **Federal eRulemaking Docket:** Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

EXAMINING THE AD DOCKET: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed AD, contact Agusta Westland, Customer Support & Services, Via Per Tornavento 15, 21019 Somma Lombardo (VA) Italy, ATTN: Giovanni Cecchelli; telephone 39 (0331) 711133; fax 39 (0331) 711180; or at <http://www.agustawestland.com/technical-bullettins>. You may review copies of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Gary Roach, Aerospace Engineer, Rotorcraft Directorate, Regulations and Policy Group, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email gary.b.roach@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2006-0228-E, dated July 27, 2006, to correct an unsafe condition for Agusta Model A109A, A109A II, A109C, A109K2, A109E, A109S, A109LUH and A119 helicopters. The MCAI AD states that an Agusta Model A109E helicopter has experienced a failure of the tail rotor pitch control link assembly, part number 109-0130-05-117, with 10 flight hours. This proposed AD would require actions

that are intended to prevent failure of a tail rotor pitch control link and subsequent loss of control of the helicopter. You may obtain further information by examining the MCAI AD and any related service information in the AD Docket.

FAA's Determination

These products have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with this State of Design Authority, the EASA, their technology agents have notified us of the unsafe condition described in the MCAI AD and service information. We are proposing this AD because we evaluated all information provided by the EASA and determined the unsafe condition exists and is likely to exist or develop on other products of these same type designs.

Related Service Information

Agusta has issued Alert Bollettino Tecnico (ABT) No. 109S-5, dated July 26, 2006, for Model A109S helicopters; ABT No. 109EP-70, dated July 27, 2006, for Model A109E helicopters; ABT No. 109K-47, dated July 27, 2006, for Model A109K2 helicopters; ABT No. 109-122, dated July 27, 2006, for Model A109A, A109A II, and A109C helicopters; and ABT No. 119-15, dated July 27, 2006, for Model A119 helicopters. These ABTs specify performing a one-time inspection of the subject link assembly for excessive friction of the spherical bearing of the bearing ball and for a crack. The EASA classified these ABTs as mandatory and issued EASA AD 2006-0228-E, to ensure the continued airworthiness of these helicopters.

Proposed AD Requirements

This proposed AD would require compliance with specified portions of the manufacturer's service bulletin including:

- Before further flight, inspect the affected link assembly for freedom of movement of the links while it is installed on the helicopter. If a rotation resistance or binding occurs, before further flight, remove the link assembly from the helicopter, and either:
 - Replace it with an airworthy link assembly with a "T" marked after the serial number, or
 - Inspect the link assembly for the torsion value force of the ball bearing.
- If not immediately required by the previous paragraph, within 5 hours time-in-service, remove the link assembly from the helicopter and inspect the torsion value force of the ball bearing rotation.
- If the torsion value force in either end of the link assembly is greater than 7.30 N, the link assembly is unairworthy.
- If the torsion value force of the ball bearing in both ends of the link assembly is equal to or less than 7.30 N, inspect the stem of the link assembly for a crack. If a crack is found, the link assembly is unairworthy.
- For a link assembly that has been inspected and determined not to have a crack, before further flight, mark a "T" on the link assembly after the serial number using an etch pen.
- For a link assembly which has been inspected and determined to be unairworthy, before further flight, replace the link assembly with an airworthy link

assembly. Only a link assembly with a “T” marked after the serial number, documenting that the link assembly has been inspected for a crack, is eligible for installation.

Differences between this Proposed AD and the EASA AD

This proposed AD does not apply to uninstalled parts whereas the EASA AD does apply to uninstalled parts. This proposed AD includes the Agusta Model A109 helicopter whereas the EASA AD does not. The EASA AD applies to the Model A109LUH helicopter, this proposal does not. This proposed AD does not require accomplishing Part III of the ABTs; the EASA AD does.

Costs of Compliance

We estimate that this proposed AD would affect 203 helicopters of U.S. Registry.

We estimate that operators may incur the following costs in order to comply with this AD. It would take about 5 work-hours per helicopter to inspect each tail rotor pitch control link assembly, the average labor rate is \$85 per work-hour, and required parts would cost about \$3,188 per helicopter. Based on these figures, we estimate the total cost to be \$733,439, assuming the tail rotor pitch control link assembly would be replaced on the entire fleet.

According to the production approval holder’s (PAH’s) service information some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage by the PAH. Accordingly, we have included all costs in our cost estimate.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

“Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by Reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new Airworthiness Directive (AD):

AGUSTA S.p.A.: Docket No. FAA-2011-1453; Directorate Identifier 2009-SW-46-AD.

(a) **Applicability.** This AD applies to Agusta S.p.A. (Agusta) Model A109, A109A, A109A II, A109C, A109K2, A109E, A109S, and A119 helicopters, with a tail rotor pitch control link assembly (link assembly), part number (P/N) 109-0130-05-117, with less than 100 hours time-in-service (TIS) and with a serial number (S/N) with a prefix of “MO” and S/N 001 through 773 and without the letter “T” suffix after the S/N, installed, certificated in any category.

(b) **Unsafe Condition.** This AD defines the unsafe condition as a failure of the tail rotor pitch control link assembly P/N 109-0130-05-117. This condition could result in failure of the tail rotor pitch control link and subsequent loss of control of the helicopter.

(c) **Compliance.** You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(d) **Required Actions.**

(1) Before further flight, inspect the link assembly for freedom of movement while it is installed on the helicopter. If rotation resistance or binding occurs, before further flight, remove the link assembly from the helicopter, and either:

(i) Replace it with an airworthy link assembly with a “T” marked after the serial number, or;

(ii) Inspect the link assembly for the torsion value force of the ball bearing rotation, in accordance with paragraph (d)(2) of this AD.

(2) If there is no rotation resistance or binding found during the inspection required by paragraph (d)(1) of this AD that required an immediate torsion value force inspection, within 5 hours TIS, remove the link assembly from the helicopter and inspect the torsion value force of the ball bearing rotation by referring to Figure 1 and following the Compliance Instructions, Part II, paragraphs 3. through 3.2, of Agusta Alert Bollettino Tecnico (ABT) No. 109S-5, dated July 26, 2006, for Model A109S helicopters; ABT No. 109EP-70, dated July 27, 2006, for Model A109E helicopters; ABT No. 109K-47, dated July 27, 2006, for Model A109K2 helicopters; ABT No. 109-122, dated July 27, 2006, for Model A109, A109A, A109A II, and A109C helicopters; or ABT No. 119-15, dated July 27, 2006, for Model A119 helicopters.

(i) If the torsion value force of the ball bearing in either end of the link assembly is greater than 7.30 N, the link assembly is unairworthy.

(ii) If the torsion value force of the ball bearing in both ends of the link assembly is equal to or less than 7.30 N, after cleaning the link assembly stem using aliphatic naphtha, or equivalent, and a soft non-metallic bristle brush, inspect all 4 (four) faces of the stem of the link assembly for a crack using a 10x or higher magnifying glass. If you cannot determine whether there is a crack in the stem of the link assembly by using a 10x or higher magnifying glass, conduct a dye penetrant inspection by referring to Figure 1 and following the Compliance Instructions, Part II, paragraphs 6. through 6.7, of the ABT that is applicable to your model helicopter. If a crack is found, the link assembly is unairworthy.

(3) For a link assembly which has been inspected in accordance with paragraph (d)(2)(ii) of this AD and determined to be unairworthy, before further flight, replace the link assembly with an airworthy link assembly. Only a link assembly with a “T” marked after the serial number, documenting that the link assembly has been inspected for a crack, is eligible for installation.

(e) Alternative Methods of Compliance (AMOC).

(1) The Manager, Safety Management Group, Rotorcraft Directorate, FAA, may approve AMOCs for this AD. Send your proposal to: Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email gary.b.roach@faa.gov.

(2) For operations conducted under a Part 119 operating certificate or under Part 91, Subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate

holding district office, before operating any aircraft complying with this AD through an AMOC.

(f) **Additional Information.** The subject of this AD is addressed in the European Aviation Safety Agency (Italy) AD 2006-0228-E, dated July 27, 2006.

(g) **Subject.** Joint Aircraft Service Component (JASC) Code: 6400: Tail Rotor System.

Issued in Fort Worth, Texas, on December 27, 2011.

M. Monica Merritt,
Acting Manager, Rotorcraft Directorate,
Aircraft Certification Service.

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